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FIRST STATE BEARING PLANT SAVES MATERIALS, CUTS REJECTS, SUPPLIES CONSTRUCTION PROJECTS

BEARING PLANT CUTS ELECTRIC POWER CONSUMPTION -- Moscow, Vechernyaya Moskva, 6 Jun 51

The Moscow First State Bearing Plant imeni L. M. Kaganovich saved 1,286,500 kilowatt-hours of electric power in the first 3 months of 1951. The plant's power engineers introduced 36 power-saving innovations in the shops. For example, arc furnaces were replaced by more economical induction smelting furnaces for a saving of 120,000 kilowatt-hours.

The adoption of precision casting has reduced power consumption by reducing the amount of machining necessary. Formerly, up to 80 percent of the metal was wasted in shavings and about 200,000 kilowatt-hours of power were consumed in machining parts.

Free forging of bearing rings has been replaced by die forging on horizontal forging machines.

By reducing rejects in one operation, the grinding of rings, one shop saved 125,000 kilowatt hours of power during the first quarter 1951.

SUPPLIES BEARINGS TO PROJECTS -- Vil'nyus, Sovetskaya Litva, 7 Jun 51

The Stakhanovite Moscow First State Bearing Plant makes bearings for walking excavators, cement pumps, and for the electrical equipment that operates canal locks. Small series shop No 1 is making bearings that will be used on motors for operating the locks of the Volga-Don Canal. On 5 June, the plant shipped to the projects a large consignment of bearings planned for the second half 1951 program.

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REDUCES REJECTS -- Moscow, Moskovskiy Komsomolets, 30 Jun 51

The First State Bearing Plant saved approximately 10 million rubles in the first half of 1951 by reducing rejects. Working without turning out any rejects, 380 brigades, 35 shifts, and 20 dep..tments have received the excellent-quality title. For turning out first-class production, 300 Stakhanovites have received the right to inspect their own work and put on their own inspection stickers. Inspectors freed by this innovation have been transferred to other sections.

PUSHES INNOVATIONS -- Moscow, Vechernyaya Moskva, 3 Jul 51

The First State Bearing Plant saved more than 5 million rubles by adopting inventions and innovations in the first 5 months of this year. A survey of inventions and innovations will be conducted at the plant from 15 June to 1 August. In the first 10 days of the survey, 300 proposals were brought forward, and more than 100 of them have been put into practice.

The forge shop, which recently contributed 70 proposals, has developed a new method of rolling the outer rings of bearings which should bring a saving of millions of rubles.

In the lathe shop, rings are machined in three operations instead of the former four, increasing labor productivity 15 percent and improving the quality of parts.

The roller shop has adopted an automatic device for loading parts into the finish grinding machine, thus permitting one man to operate two machines.

In assembling certain types of bearings, it is difficult to insert the last ball. Assembler Fedorova designed a special pneumatic clamp for the purpose which greatly speeds the operation.

Plant innovators are making every effort to realize a savings of 12 million rubles by the end of the year by adopting innovations.

Tallin, Sovetskaya Estoniya, 4 Jul 51

The First State Bearing Plant has filled all orders for the projects for the first half of 1951 ahead of time. Three thousand innovations were adopted in the enterprise for a saving of more than 6 million rubles. Labor productivity was increased 10 percent above the plan and losses from rejects lowered by 30 percent as compared to the first half of 1950. More than 800 lathes and milling machines have been converted to high-speed metal-cutting methods.

MAKES STONE CUTTER -- Moscow, Vechernyaya Moskva, 5 Jul 51

The machine and repair shop of the First State Bearing Plant has received an order for milling cutters for powerful universal stone-cutting machines. The external diameter of the cutter is 1.35 meters and its weight is 208 kilograms. The cutter, which is composed of more than 600 parts, will be used on the stone-cutting machine designed by A. M. Stolyarov, Stalin Prize Winner. The machine will be used at the Volga-Don Canal and Kuybyshev GES projects. The teeth of the cutter were machined in 36 hours instead of the 100 called for by the norm.

SAVES MATERIALS -- Moscow, Moskovskaya Pravda, 6 Jul 51

The forge shop of the First State Bearing Plant, aided by the Experimental Scientific Research Institute of the Bearing Industry, has modernized its rolling (raskatochniye) machines and adopted induction heating of billets being rolled. Much expensive steel is saved in making forgings with the improved equipment. Formerly, a type 7530 forging weighed 15.4 kilograms; now it weighs 9.6 kilograms. Forgings that weigh too much or too little are not accepted by the Technical Control Division.

These improvements made it possible for the forge shop to save 700 tons of bearing steel, to lower rejects 35 percent as compared to 1950, and to save 2,300,000 rubles in the first half of 1951.

The forge shop has agreed to fulfill the 1951 plan by 21 December and to save 1,600 tons of metal, 100,000 kilowatt-hours of electric power, and 80 tons of ideal fuel, and to reduce rejects by 20 percent during the remainder of the year. The shop hopes to save 3,000 rubles per worker by adopting innovations.

IMPROVED PROCESSES REDUCE WASTE -- Moscow, Izvestiya, 20 Jul 51

The Moscow First State Bearing Plant is a plant of collective Stakhanovite labor.

The postwar development of the plant has been characterized by an uninterrupted improvement of the technology and organization of production, the rapid growth of labor productivity, and the improvement of all technical and economic indexes.

The plant completed its postwar Five-Year Plan ahead of time and produced a million bearings above the Five-Year Plan in 1950. Although production area has been considerably reduced as compared to the prewar period, the plant produced in 1950 bearings worth considerably more than the 1940 output, and the output of bearings per worker increased considerably.

The indexes of utilization of equipment increase from year to year. Output of basic products per unit of equipment increased 27.1 percent in 1950 as compared to 1949, and output per square meter of production area increased 35.2 percent.

To increase output by more than a third and lower production cost of goods by 29 percent as the state plan for 1950 demanded, every link of the plant's production had to be put on a higher organizational and technical level.

Plant workers changed the design of castings and forgings for bearing parts, thus increasing the coefficient of utilization of the metal and lowering the labor consumption in lathe operations. Heat treatment of parts was improved, cutting down the production time and increasing the life of bearings. High-speed metal cutting and advanced methods of technical control were also adopted.

The First State Bearing Plant has initiated a new process for making forgings for bearing rings. Until recently, large-sized bearing rings were made by free forging, which involved large metal losses. In 1950, the plant adopted profile rolling of large-sized bearing rings. This solved the problem of producing a forging with dimensions close to those of the finished part. High-frequency heating of the forgings prior to rolling instead of heating in an air furnace provides a constant supply of heated billets and increases the productivity of the rolling machines by 50 percent.

The plant has adopted cold stamping of external rings and other bearing parts from steel strips, making it possible to eliminate lathe operations almost entirely. Improvement of cold-stamping methods continues.

Last year, the process of annealing forgings was reorganized and annealing time shortened from 48 to 18 hours. In recent years, and especially in 1950, new improved methods of heat treating parts and other technical improvements were adopted. The number of strokes /per minute/ on the horizontal upsetting machine was increased.

Grinding machines make up 75 percent of the equipment in the bearing industry, and so plant technologists, innovators, and Stakhanovites have concentrated on speeding up the operation of these machines.

Plant engineers developed and put into practice 150 instruments for the simultaneous control of several dimensions of parts and assembled bearings.

Foremen and senior workers took charge of workers who did not fulfill the established production norms and brought them up to the level of leading workers by using Engineer Kovalev's method. More than 600 methods were studied, and 290 of these were selected for adoption on a mass scale and taught to more than 1,000 workers.

A year ago, 6 percent of the workers did not fulfill their production norms, but by the end of 1950, there was not one worker who did not meet his progressive norm. There was widespread competition among brigades to put out only excellent-quality production.

After the plant won the collective Stakhanovite labor title, the party organization set a new goal before the plant workers: to make the plant an excellent-quality-production enterprise in 1951.

Most of the operations in the manufacture of bearings are performed on complex automatic and semiautomatic machine tools. Skilled workers of the fourth and fifth categories work on these machine tools, which are set up by highly qualified workers of the seventh and eighth categories.

Setup man Aleksandr Burov proposed a new method of organizing setup men in mixed brigades which served all three shifts. These brigades sought to increase not only shift, but also 24-hour production. A year ago, the first five mixed brigades were organized at the plant; now there are 50 such brigades. There are dozens of mixed departments, which bear collective responsibility for their work, at the plant.

One of the forge shops of the First State Bearing Plant has assumed the following obligations: to complete the 1951 production plan by 21 December, to earn the title of excellent-quality shop, and to save 1,600 tons of metal and 100,000 kilowatt-hours of electric power by the end of the year.

Simplifying the setup of forging tools on horizontal forging machines increased their productivity 5-10 percent. The adoption of profile rolling made it possible to reduce allowances, thus saving from 7 to 30 percent of the metal used in the part.

A new method of broaching ring openings when using the free forgings method reduces waste and gives a 3-percent metal saving.

Four departments and 70 brigades have won the excellent-quality production title.

The shop fulfilled the half-year plan early, saved 700 tons of metal, and reduced losses from rejects by 35 percent as compared to 1950 for a saving of 2,300,000 rubles.

In the ball bearing shop, machining of rings has been organized on a continuous line. A mobile storage rack at the head of the conveyer feeds forgings onto the line in accordance with the tempo at which the machine tools operate. The forgings move from machine tool to machine tool along a complex system of grooved channels located over the machine tools and fall into a receptacle at the end of the line.

Percentage increases in bearing output per unit of equipment and per worker are as follows:

	1946	1947	1948	1949	1950	1951
Output per unit of equipment	100	158.4	197.0	248.3	351.1	475.1
Output per worker	100	131.8	154.1	168.6	225.0	268.1

PLANT CUTS REJECTS -- Moscow, Pravda, 5 Jul 51

At the Kuybyshev Bearing Plant, there are about 250 Stakhanovite brigades turning out only excellent-quality production. Workers, engineers, and technicians are working to make the enterprise an excellent-quality production plant.

SARATOV PLANT SENDS BEARINGS TO VOLGA-DON CANAL PROJECT -- Moscow, Izvestiya, 25 Jul 51

The Saratov Bearing Plant recently received an order for bearings from the Volga-Don Canal project that was to be filled in the third quarter. The plant filled the order in 10 days.

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